

Innovations in Practice: Drop-In Clinics for Environmental Studies Students

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Abstract

The delivery of library instruction to students in those areas of the sciences and the social sciences dealing with biology and the environment has a long history (Bowden & Di Benedetto 2001; Kutner 2000; Kutner & Danks 2007; Sapp 2006; Sinn 1998). Often these instruction sessions take the form of a one hour lecture or workshop at the start of a semester before the students have begun their projects or papers. This "one-shot" approach, though popular, has its limitations. It may not be offered at a time when the students will actually start making use of library resources, it may not be tied very specifically to a particular assignment, or it may be too general in nature to be of much use to students later on when they need to look at particular topics in much more depth than can be addressed in one such session. The following article describes another approach: the strategic use of drop-in clinics as a method of instruction in which the students themselves determine how the instruction proceeds.

Keywords

Faculty-Librarian Collaboration; Information Literacy; Research Skills; Self-Directed Learning; Drop-In Clinics

Introduction

The drop-in clinic model has been discussed in the library literature as a way to support students outside the physical classroom (Bergen & MacAdam 1985; Christensen 1994; Debreczeny 1985). Earlier views described it as a method to help students improve their writing in tandem with their library skills. Rather than focusing on improvement in writing skills, the practice described in this article uses the drop-in clinic as a way to improve student learning.

The new model of the drop-in clinic is grounded in ideas of scaffolding and constructivism. Scaffolding is a method of acquiring knowledge, and constructivism is a theory of how knowledge grows. The ERIC Thesaurus defines scaffolding as:
Temporary support or assistance, provided by a teacher, peer, parent, or computer, that permits a learner to perform a complex task or process that he or she would be unable to do alone-the technique builds knowledge/skills until learners can stand on their own,

similar to scaffolding on a building (ERIC Thesaurus 2003). In library terms, scaffolding refers to assistance received from student peers, classmates, the professor, the librarian or others in completing library tasks (Bordonaro 2004). Constructivism is a learning theory that proposes that new knowledge is "constructed" through building connections between what is known and unknown (Fosnet 2005). Constructivism in library contexts occurs when students add new knowledge to their prior existing knowledge base about how to efficiently find and use appropriate library resources.

In the drop-in model discussed in this article, the focus is on the building of student self-knowledge in the subject area of environmental studies. The librarian in this new model is a facilitator helping students acquire new subject knowledge rather than a mentor helping students improve their generic writing skills.

Background

This article describes the use of drop-in clinics as an instructional tool at the James A. Gibson Library, Brock University in St. Catharines, Ontario. Brock University is a mid-size university in southern Ontario that offers both undergraduate and graduate degrees in the arts and sciences. This university is currently undergoing a transformation to become a more research focused graduate institution. It is in light of this transformation that this new approach to library instruction has been tested. A stronger pedagogical emphasis on enabling students to become more self-directed learners provided a good opportunity to test this new form of instruction.

The drop-in clinic approach was conducted with undergraduate environmental studies students in a course called TREN 1F90, Sustainability, Environment and Tourism. This course, aimed at first year students, is offered every fall, and it generally enrolls about 300 students. The current course is a merger of two introductory programs formerly offered as two separate first year courses. Environment and Tourism used to be two different departments, but in 2006 they merged. In September 2006 the new joint course enrolled 270 students, and in September 2007 there were 360 students. The content of the course covers:

The principles of environmental sustainability applied to tourism and other examples. The course explores a variety of issues involved with implications of consumption and production of human activity including tourism, from local to global scales and the resulting environmental, economic, socio-cultural and political impacts. (Brock University Calendar 2007-2008).

In order to promote the learning of this content, the professor requires the students to engage in the following tasks and assignments: seminar participation, a mid-term exam, an assignment and the final exam. The assignment is worth 25% of the final mark and is entitled "Understanding Environmental Issues and Information Sources". Details of the assignment can be found at: <http://www.brocku.ca/tren/courses/tren1f90/2007/>. The professor emphasizes the importance of understanding and interpreting environmental information. He points out that interdisciplinary research demands excellent information retrieval skills. He notes that this assignment is designed to help master information retrieval skills and the importance of understanding and evaluating environmental

information from a variety of sources. The library component of the course requires the students to work through a series of questions to find and report on Library of Congress Subject Headings; books; abstracting databases; scholarly journals, magazines and newspapers; government documents, theses and laws; web sites; and audio-visual materials which are relevant to their chosen topic.

Since there are 360 students but only one science librarian who works with this academic department, there are limited options for meeting with every student individually. In the past, the librarian would present a somewhat lengthy overview of important library resources and services to the entire class, but she found that students would often neither retain the information after the lecture nor sometimes even pay attention to the lecture in the first place. So in addition to lecturing to the full class, she considered other options. One option was to meet with all the individual seminar sections. At Brock University, every student in each large class has a dual responsibility to attend both the large, formal lecture once a week and also to attend a smaller seminar section of the class (generally of about twenty students) where the main ideas in the lecture are discussed, reinforced, and presented in more interactive ways. Although conducting a number of workshops for students in smaller groups is an option for perhaps engaging the students more readily in this instruction, it takes a toll in terms of how many sessions the librarian is physically able to offer, and in terms of locating suitable shared instructional spaces on a campus that is currently too small to accommodate all the students currently attending the university. As an alternative, the drop-in clinic was developed to offer a reasonable way to accommodate the instruction needs of both the librarian and the students in this environmental science class.

Methodology

The manner in which the drop-in clinics are run follows this pattern. Very early in the term, usually 7 weeks before the assignment is due, the professor invites the librarian into the classroom. Traditionally the librarian has spoken for 50 minutes. Most students have not read the assignment at this stage. The librarian shows them where to get help, including a web page where she posts the PowerPoint presentation, details about how to find her in her office or via email and an entire web page devoted to this assignment. The librarian also tells the class how to find the Research Help Desk, where they can get general help from library staff. She spends the rest of the class going over the assignment so the students get a sense of how much time the assignment will take to complete. At the end of the class she mentions the drop-in clinics. The professor also encourages the students to get started early and attend one of her clinics. Scheduling the clinics at appropriate times is almost impossible since all the students have individual timetables. Usually she offers three to four clinics. She starts about two weeks before the assignment is due. Next she targets one week, four days and finally two days before the assignment is due. She offers the clinics on different days and at different times.

As the students arrive at the clinic she explains that this is an informal class and they can participate at any time and that they are free to come and go. Sometimes up to twenty students may be in the room, so to give some structure to the proceedings, she

asks students as they arrive which question on the assignment they want to review. She puts the number on a blackboard and that becomes the agenda. As the questions are reviewed she removes the number from the list. As new students show up she adds their questions to the list. There is some duplication of course, but some students sit through the same review twice. The students often feel comfortable enough to participate and some of the time they are engaged in social learning when they discuss the problems with each other. Accordingly, the librarian's role often switches from instructor to facilitator depending upon the needs of the students.

The professor's role is one of initiator. The professor has invited the librarian into his classroom for fifteen years for this assignment. He is very supportive and always willing for her to take a risk. For example, the professor supports the librarian's use of role playing whereby the librarian interviews students about how to answer questions on the assignment. The professor was very receptive to the idea of clinics and offered suggestions about the number of clinics and the timing. He also reminded the students about upcoming clinics both at the end of each class and via email.

Results

Feedback has been positive. This feedback was given as testimonials from the professor through email as to how he thought the drop-in clinics were working as an instructional method. Sample comments include:

2007 -- "Great job today, and a very good response. The students seem a bit more tuned in this year than in previous years... just my imagination? Time will tell. Thanks for an excellent overview. I'll post your PowerPoint and link on the course home page. As always... MUCH APPRECIATED!!!"

2006 -- "You and your colleagues provided a very good overview of important info retrieval concepts in a well-organized, accessible manner. ... There were many students in the class who clearly enjoyed and benefitted from your presentation, and I suspect that their attention and interest will be reflected in the grades on the assignment itself. Thanks again to all of you for your efforts and enthusiasm - much appreciated!"

The feedback received has also offered some insights into how these drop-in clinics might be changed in the future in order to make them even more useful to the students. Possibilities for changes include:

- Offering a clinic earlier in the term for students who want to get started sooner.
- Monitoring the Research Help Desk (the reference desk) to see when the most activity occurs for this assignment (morning, evening, one day before it is due?)
- Perhaps offering office hours to students.

The drop-in clinic has proven to be a useful supplement to a classroom lecture for the students, the professor, and the librarian. It offers students the opportunity to drive the learning process for themselves. This can be seen in how students respond to the initial request at the start of each clinic for input on what they would like to see covered. Rather than following a pre-determined outline, the librarian instead can tailor each individual clinic to meet the expressed needs of the students attending that clinic. The students can follow their own paths to research with the guidance of the librarian.

The success of the drop-in clinic can be measured by student improvement on scores for the library assignment. Although the percentage of students who attended the drop-in clinics remained small (13% in 2006, 13.9% in 2007, and 11.9% in 2008), improved grades were noticeable on all scores. Improved overall scores cannot be said to be caused by the use of drop-in clinics, but the clinics may have been a factor in the improved grades.

Evidence of student learning may be seen from these grades. Student feedback from verbal comments made to the professor seemed to confirm that increased learning took place. A future study could more deeply investigate how learning takes place through the use of drop-in clinics.

Conclusion

As a pedagogical approach, the drop-in clinic underscores current thinking about the constructivist nature of education (Fosnet 2005). Students in these clinics constructed their own knowledge through the support of their peers and other partners in the scaffolding process (Bordonaro 2004). This process led to self-generated knowledge that was connected to the background knowledge of the students. As such, the drop-in clinic offers a powerful alternative to the traditional one-shot library instruction session. Future research may consider how best to measure the success of this type of instruction and to more fully examine and describe the details of the learning that takes place. In summary, the use of this newer model of drop-in clinics is well worth considering by other librarians involved in instructional efforts in different institutional settings.

Acknowledgment

The authors would like to thank Professor Dave Brown in the Department of Tourism and Environment at Brock University for his ongoing support and friendship.

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